Attitudes Towards the Use of Artificial Intelligence (AI) in Paediatric Healthcare – Insights from Parents, Carers, Children and Young People: A Cross-Sectional Survey Study

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Introduction

- AI has many potential benefits for transforming healthcare for children and young people (CYP) in the UK and internationally, in addition to a wide variety of healthcare professionals involved in their care[1].
- AI is already being used in a wide variety of fields, such as for diagnostic purposes in radiology[2] and in the field of genetics[3].
- There is limited literature on the views of parents, carers, and particularly CYP, towards AI in paediatric healthcare. Understanding these perspectives is vital for supporting informed shared decision-making, patient-centred care, and addressing ethical, legal, and social concerns.

Objectives

1. To identify current views and understanding of the use of AI in paediatric healthcare among parents, carers and CYP
2. To assess how demographic factors influence perceptions of AI and to identify disparities in understanding and acceptance

Methods

Who? Parents and carers of CYP receiving care, as well as CYP aged 11–17 years

What? An observational, cross-sectional study was conducted using a study-specific questionnaire. Paper questionnaires and an online version, accessible via QR code, were distributed with support from nursing staff. Quantitative data was analysed using 'R' statistical software and qualitative data using thematic analysis.

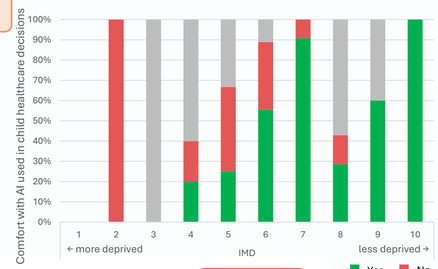
Where? Hereford County Hospital, a rural district general hospital in the UK. Children's ward, Paediatric Assessment Unit and Children's Outpatients.

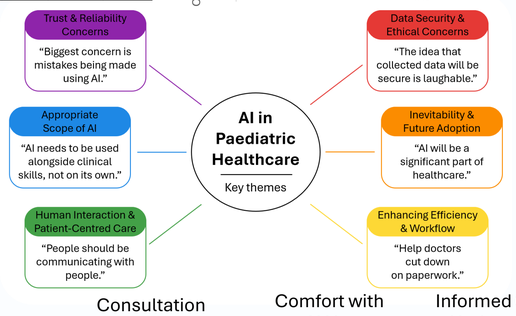
When? Randomly selected days between Jan-Feb 2026

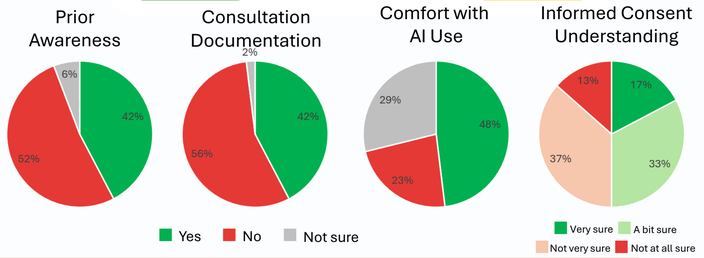
Results

Parents & carers (*n*=52)

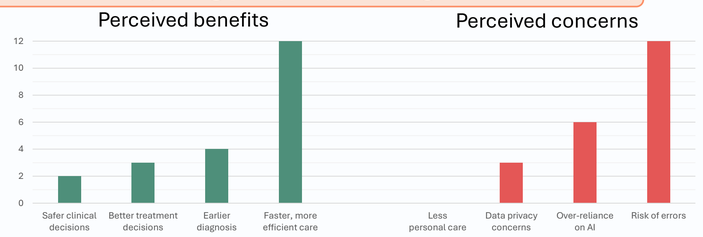
IMD	Comfort with AI used in child healthcare decisions: Yes	No	Not sure	Total
1	0	0	0	0
2	0	1	0	1
3	0	0	1	1
4	1	1	3	5
5	3	5	4	12
6	5	3	1	9
7	10	1	0	11
8	2	1	4	7
9	3	0	2	5
10	1	0	0	1
Total	25	12	15	52







Children and young people (*n*=21, age 11-17, 12M/9F)





- Strong associations between parent/carer level of comfort with AI and level of understanding ($p<0.001$).
- Participants from lower IMDs were less comfortable with AI being used ($p=0.015$).
- Higher understanding of AI was observed in professional/highly skilled occupations ($p=0.029$).

Discussion

- Understanding of AI may influence acceptance of its use and highlight potential inequalities in AI literacy.
- Gaps exist in awareness of AI and its potential uses in CYP healthcare, alongside notable levels of distrust in AI.
- Disparities in AI understanding and acceptance among participants from more deprived areas and less skilled/professional backgrounds should be addressed to support equitable and ethical implementation of AI in paediatric healthcare.
- Consistent with RCPCH recommendations, stakeholder collaboration and transparent communication of AI benefits and risks are essential for the ethical implementation of AI.[1]

Conclusions

- This study helps address a gap in UK evidence on parent, carer and CYP perspectives of AI, highlighting the need for education, informed consent, and further research to support the responsible implementation of AI in paediatric healthcare and enhance trust in its use.
- Insights learned will enable a wide range of health care professionals to implement AI tools confidently and responsibly, enhancing trust and optimising health outcomes across paediatric services.

References

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3. Coghlan, S., Gyngell, C. & Vears, D. F. (2023) Ethics of artificial intelligence in prenatal and pediatric genomic medicine. J. Community Genet. 15, pp.13–24.

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